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ABSTRACT
        A literature search for information concerning standards for library and information center personnel resulted in this annotated bibliography. The twofold purpose of the study was: (1) to identify the staffing and organization problems of the library and information science professions and their methods of solving them and (2) to record pertinent material with annotations and abstracts suitable for use in development staffing guides for Department of the Army libraries and information facilities. Most of the titles listed have been published since 1963. A few earlier titles are included as background reading or for their historical interest. The bibliography is arranged alphabetically by author. The few publications not available for examination are marked. They are included because of their apparent importance as indicated by their titles. An index, arranged by subject content as well as by types of libraries and information facilities, is included. (Author/NH)

A BIBLIOGRAPHY ON STAFFING CRITERIA FOR

LIBRARIES, INFORMATION CENTERS, AND INFORMATION ANALYSIS CENTERS

prepared by

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A BIBLIOGRAPHY ON STAFFING CRITERIA
FOR LIBRARIES, INFORMATION CENTERS, AND INFORMATION
ANALYSIS CENTERS

This bibliography of 159 references is the result of a search of

the literature on standards and related subjects for a twofold purpose:

(1) to identify the staffing and organization problems of the library and

information science professions and their methods of solving them; and

(2) to record pertinent material with annotations and abstracts suitable

for use in development staffing guides for Department of the Army libraries

and information facilities.

The majority of titles listed have been published since 1963. In

that year the President's Science Advisory Committee published a report,

"Science, Government, and Information: The Responsibilities of the Techni-

cal Community and the Government in the Transfer of Information" (frequently

referred to as the Weinberg Report) which pointed Government and non-Government

information activities in a new direction. In the same year the Brookings

Institution published a report of a survey of Federal libraries by Luther

H. Evans, former Librarian of Congress. This was the first survey of Federal

libraries since 1876, and contained important recommendations many of which

have since been followed. Therefore, earlier titles which are listed have

been included as background reading or because they are of historical interest.

Various facets have been explored which are pertinent to staffing. Mate-

rial is included which defines and identifies: the Department of Army libraries,

information centers, and information analysis centers; mission, functions, and

operations of these facilities; the classification of positions in these facil-

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ities including duties and responsibilities; and budget allocations--all as
they pertain to the staffing of the facilities. Most particularly emphasis
has been placed on that material which contributes characteristics for staffing
criteria on which yardsticks have been or may be based.

The publications included were identified by searching Library Litera-
ture, Dissertation Abstracts, U.S. Government Research and Development Re-
ports, the bibliographies of various Reports and Studies, catalogs of the
libraries of the Civil Service Commission, Department of the Army, Depart-
ment of Health, Education and Welfare, Department of the Interior and the
Standards file in the Washington office of the American Library Association.
Helpful advice was also obtained through consultation with librarians who
have been particularly interested in staffing criteria.

Arrangement of the bibliography is alphabetical, by author. Each entry
is numbered in sequence and includes a descriptive annotation or an abstract
from the contents of the article, book or report cited in order to call atten-
tion to a significant portion of it. A few publications were not available
for examination and are so marked. They are included, nonetheless, because
of their apparent importance as indicated by their titles.

An index, geared as a guide for those using the bibliography, is arranged
by subject content as well as by types of libraries and information facilities.

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       The location, personnel, affiliation, mission, services, user
    qualifications, and publications of 21 analysis centers supported
    by the Department of Defense and 14 supported by the Atomic Energy
    Commission are described. Characteristics of analysis centers
    which provide differentiation from documentation centers are indi-
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       An essay on trends in the information field including the future
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    STANDARDS FOR LIBRARY FUNCTIONS AT THE STATE LEVEL. Chicago, Ameri-
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       This is the formal report of the Committee on Research Libraries
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Working manual on all phases of personnel administration, for use
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FOR PROGRAMS TO PREPARE LIBRARY TECHNICAL ASSISTANTS. Special Libraries
60:253-258. April 1969.
Also appears in Summary. Library Journal 94:1830. May 1, 1969.
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on Training Programs for Supportive Library Staff and is intended to
serve as a guide for persons planning programs for Library Technical
Assistants (LTA) and for the evaluation of existing programs for
Library Technical Assistants. The programs are conceived as intro-
ductory preparation of personnel to fill beginning positions in
the range of Library Technical Assistant positions in a variety
of situations." Supersedes "Draft of Guidelines for Training Pro-
grams for Library Technical Assistants" published in LED Newsletter,
May 1968.

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PUBLIC LIBRARY SERVICE: 1969. Just Between Ourselves (Public Library
Association). October 1969.
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standards. An annual revision is planned.

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STANDARDS FOR PUBLIC LIBRARY SYSTEMS, 1966. Chicago, American
Library Association, 1967. 80 p.
Officially adopted standards for all public library service,
including staffing of libraries. A listing of "Statistical Stan-
dards," approved June 1967 by the PLA, is also included.

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13. APPRAISALS OF "OBJECTIVES AND STANDARDS FOR SPECIAL LIBRARIES."
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    education. The proposals included in the statement introduce a
    middle service at the bachelor's level, the training of technical
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    SERVICES TO EXTENSION STUDENTS. ALA Bulletin 61:50-53. January 1967.
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    STANDARDS FOR COLLEGE LIBRARIES. College and Research Libraries
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    Also published in Chicago, by American Library Association, 1959.
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    8 p.
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22. Battelle Memorial Institute. SURVEY AND ANALYSIS OF SPECIALIZED
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       "The successful development of a library's automation program
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of its 'intangible nature'."

65. Kershaw, G. and Davis, J.E. MECHANIZATION IN DEFENSE LIBRARIES.
Datamation 14:48-50, 53. January 1968.
A study of military libraries concludes that mechanization has
not been as helpful as it should be. Suggests ways to improve
utilization.

66. Knight, Douglas M. and Nourse, E. Shepley, eds. LIBRARIES AT LARGE:
TRADITION, INNOVATION AND NATIONAL INTEREST; THE RESOURCE BOOK
BASED ON THE MATERIALS OF THE NATIONAL ADVISORY COMMISSION ON
LIBRARIES. New York, R.R. Bowker, 1969. 664 p.

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A source book presenting all facets of library and information service activities in the United States. There is a section on Government library and information services which includes a short history and presents the current picture. Numerous tables and statistics combine to make this volume encyclopedic in nature.

67. Kozumplik, William A. TIME AND MOTION STUDY OF LIBRARY OPERATIONS. Special Libraries 58:585-588. October 1967.
    Article on the application of standard work measurement techniques to acquisitions, cataloging, and circulation functions. "A 38 percent saving in manpower without loss of quality effort proves the library environment responds admirably to this management tool."

68. Kruzas, Anthony T. DIRECTORY OF SPECIAL LIBRARIES AND INFORMATION CENTERS. Detroit, Gale Research Company, 1968. 2d ed., 1048 p.
    "A guide to special libraries, research libraries, information centers, archives, and data centers maintained by Government agencies, business, industry, newspapers, educational institutions, nonprofit organizations, and societies in the fields of science, technology, medicine, law, art, religion, history, social sciences, and humanistic studies."

69. Lewis, Alfred J. 1969 STATISTICAL SURVEY OF LAW SCHOOL LIBRARIES AND LIBRARIANS. Law Library Journal 63:267-272. May 1970.
    Results of a survey conducted by the American Bar Association, Section on Legal Education, in the fall of 1969, to obtain for the first time statistics on law school libraries. 145 law school libraries were surveyed. Numbers of professional and nonprofessional staff are given.

70. LIBRARY EDUCATION AND MANPOWER. American Libraries 1(4):341-345, April 1970.
    An ALA policy proposal recommending categories of library manpower and levels of training and education appropriate to the preparation of personnel for these categories which will support the highest standards of library service. Library service as here understood is concerned with knowledge and information in their several forms--their identification, selection, acquisition, preservation, organization, communication and interpretation, and with assistance in their use. A table on page 342 lists categories of both professional and supportive library personnel, by title, basic requirements, and nature of responsibility. Under title, positions requiring library-related as well as those requiring nonlibrary related qualifications are included.

71. LIBRARY TECHNOLOGY: A PANEL. Library Law Journal 61:409-420. November 1968.

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Panel on "impact of technology on librarianship" held at the
61st annual meeting of the American Association of Law Libraries,
July 1-3, 1968. Applications of mechanization to law libraries
is discussed.

72. Licklider, J.C.R. LIBRARIES OF THE FUTURE. Cambridge, Massachusetts
Institute of Technology Press, 1965. 219 p.
This book is based on a study sponsored by the Council on Library
Resources and conducted by Bolt, Beranek and Newman, Inc. It is
a clear and important presentation of information science in the
libraries of today, what is required of libraries, how computers
are helping meet the requirement, and what we may expect of the
libraries of tomorrow.

73. Lilley, Dorothy B. GRADUATE EDUCATION NEEDED BY INFORMATION SPECIALISTS
AND THE EXTENT TO WHICH IT IS OFFERED IN ACCREDITED LIBRARY SCHOOLS.
Dissertation Abstracts 30:1581A. October 1969. Thesis for D.L.S.,
Columbia University, 1969.
A survey was conducted to determine patterns of organization in
information centers and university libraries, differences in acti-
vities and education needed to perform them, and the extent to which
selected library schools offer the areas of knowledge which infor-
mation specialists need. Librarians and information specialists
are involved in 71 activities; 33 areas of knowledge are needed to
perform them. Conclusions include recommendations to library
schools for educating information specialists.

74. Line, Maurice B. INFORMATION SERVICE IN UNIVERSITY LIBRARIES. Journal
of Librarianship 1:211-224. October 1969.
Recommendations are offered for the creation of special posts
of information officer within university libraries, with functions
distinct from those of librarian, in order to meet the increased
demands for library service. Suggests reallocation of duties and
funds in order to pay for such positions.

75. Martin, Lowell A. PERSONNEL IN LIBRARY SURVEYS. In Tauber, Maurice F.
and Stephens, Irlene R. Library Surveys. New York, Columbia Uni-
versity Press, 1967. p. 123-141.
Article on the help that surveys can give in the area of staffing,
and how to interpret personnel data derived from the survey.

76. Martin, Robert L. TECHNICAL AND MEDICAL RESEARCH LIBRARIES AND INFOR-
MATION CENTERS OF THE DEPARTMENT OF THE ARMY. Washington, U.S.
Department of the Army, 1966. 20 p. (ATLIS Report No. 1) (AD 655 535)
This document provides a listing of technical libraries and infor-
mation systems of the Department of the Army arranged alphabetically
by state. Information given includes name and address of the organi-
zation, name of librarian or director, size of staff, and descrip-
tion of collections.

77. Maryland Library Association. Legislative and Planning Committee.
    MINIMUM PROFESSIONAL PERSONNEL AND STAFFING STANDARDS FOR MARY-
    LAND'S PUBLIC LIBRARY SYSTEMS; A PROPOSAL. Maryland Libraries
    34:7-12. Summer 1968.
    Also appears in Library Journal 93:3747-3749. October 15, 1968.
    Comment [letters]. Appears in Maryland Libraries 35:12-15.
    Winter 1969.
        Proposal of standards for Maryland's public library systems by
    a subcommittee appointed by the Legislative and Planning Committee
    of the Maryland Library Association. These standards include:
    professional personnel standards (i.e., library education require-
    ments, graduate and undergraduate); and staffing requirements
    including minimum staffing formula.

78. Military Librarians Workshop, 4th, Arlington, Virginia, 1960. SUP-
    PLEMENTAL WORKSHOP PAPERS. Arlington, Virginia, Armed Services
    Technical Information Agency, 1960. 41 p.
        "Standards for Military Libraries," a panel discussion, pages
    13-23, is of interest.

79. Military Librarians Workshop, 9th, West Point, New York, 1965. THE
    LIBRARY IN THE DEFENSE ESTABLISHMENT: MUTUAL OBLIGATIONS TOWARD
    MISSION ACCOMPLISHMENT; Proceedings, November 3-5, 1965. West
    Point, New York, U.S. Military Academy, 1966. 104 p.

80. Military Librarians Workshop, 12th, Carlisle Barracks, Pennsylvania,
    1968. MANAGING A LIBRARY; Proceedings, September 30-October 2,
    1968. Carlisle Barracks, Pennsylvania, Army War College, 1968.
    64 p.
        Contents: Special libraries--problems and cooperative potentials;
    Military library management; The large Army technical library; Man-
    aging a small Navy research library; Managing a medium size Air
    Force technical library; Managing a medium sized armed forces
    academic library. Summaries. Resolutions.

81. Minder, Thomas L. LIBRARY SYSTEMS ANALYST; A JOB DESCRIPTION.
    College and Research Libraries 27:271-276. July 1966.
        This article on the place of a library's systems analyst within
    the library organization, covers job description, functions, and
    prerequisites. Details are applicable to both small and large
    libraries.

82. Murdock, J.W. and Brophy, C.A. COMPARISON OF THE FUNCTIONS OF
    LIBRARIES AND INFORMATION CENTERS. Library Trends 14:347-352.
    January 1966.
        Comparison of duties and responsibilities of libraries and infor-
    mation centers, Federal and nonfederal, with implications for staffs.

83. Nelson Associates. PUBLIC LIBRARY SYSTEMS IN THE UNITED STATES: A
    SURVEY OF MULTIJURISDICTIONAL SYSTEMS. Chicago, American Library
    Assocation, 1969. 384 p.
       "An introductory chapter presents the objectives and methodology
    of this landmark study based on data collected from 58 selected
    systems. An overview gives a general historical review of system
    development, resources and services of 58 selected systems..."
    Personnel and other areas of six selected systems are examined.
    A summary of findings, conclusions and recommendations is presented.

84. Orlov, V. USSR TECHNICAL LIBRARIES IN THE NATION-WIDE SYSTEM OF
    SCIENTIFIC TECHNICAL INFORMATION. Libri. 18(3-4):230-236. 1968.
       This article outlines organization of the system of scientific
    and technical information in the USSR. The role of technical li-
    braries as an integral part of this system is described, with em-
    phasis on the USSR National Public Library for Science and Technology.

85. Orne, Jerrold. PLACE OF THE LIBRARY IN THE EVALUATION OF GRADUATE
    WORK. College and Research Libraries 30:25-31. January 1969.
       This article describes the effect of increasing enrollment,
    changing degree programs, and rising costs on the academic library.
    A paragraph on consequent new demands on library staffs is included.

86. Painter, Ann F. ROLE OF THE LIBRARY IN RELATION TO OTHER INFORMATION
    ACTIVITIES; A STATE-OF-THE-ART REVIEW. Washington, Office of the
    Chief of Engineers, 1968. 92 p. (TISA Project Report No. 23)
    (AD 682 010)
       "The purpose of the state-of-the-art is to establish on the
    basis of the literature the role the library plays in relation to
    these other information activities in the Federal Government and
    perhaps shed some light upon the reasons for the development of
    separate facilities. Some of the characteristics investigated
    include definitions, functions, objectives, organization, financial
    base, services, personnel, and the user. A two-part bibliography
    (alphabetical and classified) supplements the text."

87. Parker, T.F. MISSING STREAM: OPERATIONS MANAGEMENT IN LIBRARIES.
    Library Journal 94:42-43. January 1, 1969.
    Comment by D.T. Wilder and R.I. Levine [letters]. Library Journal
    94:921. March 1, 1969.
       The importance of systems analysis in today's libraries. Analy-
    tical techniques are available and should be used. Among other
    benefits such analysis will identify clerical and nonprofessional
    tasks now being carried by professionals and permit the assignment
    to nonprofessionals.

88. Penna, Carlos Victor. PLANNING LIBRARY SERVICES. UNESCO Bulletin
    for Libraries 21:60-92. March 1967.

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A comprehensive article on all aspects of library planning for all types of libraries. The author draws primarily from his knowledge of and experience in Latin American libraries. Includes a bibliography of works on standards.

89. Price, Bronson. LIBRARY STATISTICS OF COLLEGES AND UNIVERSITIES: ANALYTIC REPORT, FALL 1968. Washington, U.S. Office of Education, 1970. 82 p.

This is a summary report of the aggregated statistics contained in William's "Library Statistics of Colleges and Universities: Data for Individual Institutions, Fall 1968," (see Item 157) plus additional libraries which did not appear in the Williams report.

90. Randall, Gordon E. MECHANIZATION AND THE SPECIAL LIBRARY. Drexel Library Quarterly 5:222-233. October 1969.

This article provides tables showing percentage-wise the type of mechanization used in college, industrial, public and government libraries. Also includes rank order of functions most frequently mechanized by type of library. Two tables relate to number of professional and nonprofessional staff. Some data is taken from the 1966 SLA-LTP survey of library mechanization. (See Item 114.)

91. Randall, Gordon E. SPECIAL LIBRARY STANDARDS, STATISTICS, AND PERFORMANCE EVALUATION. Special Libraries 56:379-386. July-August 1965.

Criticizes 1964 Special Library Association standards, "Objectives and Standards for Special Libraries," (see Item 113) as too vague and offers modifications in the areas of staff, collection, circulation, physical facilities, and budget. As date of article author represented SLA on the American Library Association Technology Project Advisory Committee.

92. Randall, Gordon E. STANDARDS FOR SPECIAL LIBRARIES. In Bowker Annual of Library and Book Trade Information, New York, R.R. Bowker Co., 1970. p. 74-76.

Quantitative data extracted from SLA's "Profiles of Special Libraries" and tabulated under the headings: clientele, staff, collection, equipment, spaces, and budget. This data shows 67% to 72% of special library budgets being allotted to staff.

93. Redmond, D.A. SMALL TECHNICAL LIBRARIES: A BRIEF GUIDE TO THEIR ORGANIZATION AND OPERATION. UNESCO Bulletin for Libraries 18:49-79. March 1964.

Though dated this is a helpful and concise article on the operation of small technical libraries. Specific guidelines and suggestions are made in the areas of staff, space and equipment, library materials, processing, use of library materials, cost, and growth. Extensive bibliography.

94. Reed, Sarah R. LIBRARY MANPOWER; REALISM, RELEVANCY AND REQUIREMENTS. Journal of Education for Librarianship 7:43-47. Summer 1966.
    Discusses requirements for manpower, and gives a chart showing selected library manpower statistics in academic, public, and school libraries weighed against American Library Association personnel standards.

95. Reynolds, Michael M. INDIANA UNIVERSITY REGIONAL CAMPUS LIBRARIES: TOWARD A SYSTEM OF ACADEMIC LIBRARIES. In Proceedings of the 1968 Clinic on Library Applications of Data Processing; edited by Dewey E. Carroll. Urbana, University of Illinois, Graduate School of Library Science, 1969. p. 89-138.
    An article concerning the centralization of technical processes begun in 1965 for the six regional Indiana University campus libraries with routines adopted which later fitted into a computer-based system. Relieving the library staffs at the regional campuses of this work added to the professional service available to users of these libraries.

96. Rogers, James F. STAFFING AMERICAN COLLEGES AND UNIVERSITIES: THE DEMAND FOR FACULTY AND OTHER PROFESSIONAL STAFF IN HIGHER EDUCATION, NOVEMBER 1963 THROUGH OCTOBER 1969. Washington, U.S. Office of Education, 1967. 220 p.
    Gives number and percent of full-time and part-time professional staff (including librarians) in colleges and universities as of October 1963, and estimates further number needed from November 1963 to October 1969.

97. Rosenberg, Kenyon C. EVALUATION OF AN INDUSTRIAL LIBRARY: A SIMPLE-MINDED TECHNIQUE. Special Libraries 60:635-638. December 1969.
    Proposes a method and a formula for evaluating library services in correlation with dollars and cents saved the parent company. Says the author: "If librarians have any value--something about which I am not the least dubious--then librarians had better start proving it."

98. Rosenthal, Joseph A. NONPROFESSIONALS AND CATALOGING: A SURVEY OF FIVE LIBRARIES. Library Resources and Technical Service 13:321-331. Summer 1969.
    A survey undertaken by the author at the request of the Cataloging and Classification Section (American Library Association) reveals good results in five university libraries using nonprofessionals in cataloging. One fact stressed is the increasing tendency to use Library of Congress catalog cards with less and less change.

99. Rowland, George E. and others. THE PROCESS OF PROFESSIONAL INFORMATION EXCHANGE AMONG SCIENCE INFORMATION SPECIALISTS; FINAL REPORT. Haddonfield, N.J., Rowland and Company, Inc., 1967. 89 p. (R/C-67-7, Contract NSF-C421) (PB-175 568)

"A study was conducted to define the process of professional
information exchange among science information specialists and
to identify their requirements. An extensive nationwide field
survey was made by interviewing 127 science information specialists
who were located in 72 different qualified science information
centers located from California to the East Coast. The data
clearly indicate that the science information specialist is
educationally and functionally different from the librarian;
that the process of science information exchange is inadequate;
and that government, industry, and academic institutions should
all become involved in constructing a better communication sys-
tem. Specific recommendations are given."--Authors' abstract

100. Rowse, David. THE RETRIEVAL OF TECHNICAL INFORMATION. Electronics
      and Power 15:96-98. March 1969.
          This is a description of the so-called "Perfect" system, EDS-0009,
      devised by the U.S. Department of Defense for the storing of techno-
      logical information and capable of rapid retrieval and instant re-
      vision.

101. Salverson, Carol A. RELEVANCE OF STATISTICS TO LIBRARY EVALUATION.
      College and Research Libraries 30:352-361. July 1969.
           "There has been increasing concern about standardizing library
      statistics. Yet conventional statistics are inner-directed and
      static measures. A library system should be evaluated in terms
      of function related to use, i.e., its efficiency and effectiveness.
      Several methods used in evaluation are examined. The concept of
      the library as a system is developed and an approach to evaluation
      is outlined. In conclusion this paper considers the relevance of
      statistics, and indicates briefly what types of data should be
      collected."

102. Schick, Frank L. THE CENTURY GAP OF LAW LIBRARY STATISTICS. Law
      Library Journal 67:1-6. February 1968.
          This article presents pertinent statistics. Of special interest
      are the numbers and grades of personnel in law libraries serving
      the Federal government for FY 1965.

103. Schick, Frank L., ed. SURVEY OF LIBRARY EDUCATION PROGRAMS IN THE
      UNITED STATES, CANADA, AND MEXICO, 1968-1970. Chicago, American
      Library Association, 1970. In preparation.
          The American Library Association states in its catalog of
      publications that this book presents statistical data from a sur-
      vey of library and information science programs, and establishes
      trends for all three North American countries. Compares findings
      with those of the previous study, "North American Library Educa-
      tion Directory and Statistics. 1966-1968."

104. Schick, Frank L. and Howard, Paul. SURVEY OF SPECIAL LIBRARIES
      SERVING THE FEDERAL GOVERNMENT. Washington, U.S. Office of Edu-
      cation, 1968. 108 p. (OE-15067)

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This is the third report on the special libraries which serve
the U.S. Federal Government, including the National Libraries.
The report covers organization, staff, and operating expenses of
these libraries, including a variety of statistics.

105. Shachtman, Bella E. OTHER FEDERAL ACTIVITIES. Library Trends
      16:112-126. July 1967.
          Article on the activities and cooperation of Federal libraries
      and information agencies other than the Library of Congress. Ex-
      plains the activities of the Committee on Scientific and Technical
      Information (COSATI) of the Federal Council for Science and Technol-
      ogy, the National Library of Medicine, the National Science Founda-
      tion, and the Federal Library Committee.

106. Shaughnessy, Thomas, ed. MOBILIZING LIBRARY RESOURCES FOR SERVICE.
      Chicago, American Library Association, 1970. In preparation.
          The American Library Association's catalog of publications
      states that this book deals with the benefits of interlibrary
      cooperation and the barriers to its accomplishment. An essential
      volume for all interested in interlibrary cooperation within the
      framework of governmental agencies.

107. Shera, Jesse H. WHAT IS PAST IS PROLOGUE: BEYOND 1984. ALA Bulletin
      61:35-47. January 1967.
          Summary of the history of mechanization in libraries with its
      implication for libraries of the future and the effect on library
      education, and hence on future library staffs.

108. Sherrod, John. SELECTION AND TRAINING OF INFORMATION CENTER PERSONNEL.
      In Howerton, P.W., ed. Information Handling, First Principles.
      Washington, Spartan Books, 1963. p. 183-193.
          Defines documentalist, librarian, special librarian, science li-
      brarian, technical literature analyst, and information scientist.
      Discusses the education of personnel for information center work;
      qualifications needed; and sources of personnel.

109. Shipps, Harrold S., Jr. EVALUATION OF UNITED STATES AIR FORCE BASE
      LIBRARIES SUPPORTING UNDERGRADUATE AND GRADUATE EDUCATION PROGRAMS
      IN COLLABORATION WITH CIVILIAN COLLEGES AND UNIVERSITIES. Denver,
      University of Colorado, 1969. 373 p.
          Ph.D. Thesis (AD 691 103)
          "The purpose of the study was to determine the adequacy of base
      library service and collections to support the undergraduate and
      graduate study programs undertaken on United States Air Force in-
      stallations by officers and airmen, through civilian institutions,
      during off-duty hours. Basic to the study was the development
      of a method of library evaluation that would be applicable to the
      individual base libraries concerned with supporting specific aca-
      demic programs, yet at the same time have the broad applicability

necessary to establish it as a rating system for any Air Force
base library engaged in supporting such programs. The evaluation
system developed consisted of a formula of point scales to be
used in rating the following resource and service elements of the
base libraries: (1) the book collection, (2) the periodical and
newspaper collection, (3) indexes and abstracts, (4) dictionaries,
(5) encyclopedias, (6) professional reference service and (7)
supplementary resources, including duplicate copies of required
reading materials; back numbers of periodicals, indexes and ab-
stracts; microtext materials; and the resources of other libraries."

110. Shores, Louis. LIBRARY TECHNICIAN: A PROFESSIONAL OPPORTUNITY.
     Special Libraries 59:240-245. April 1968.
         The role of the library technician as defined in the Civil Ser-
     vice Commission position classification standards, GS 1411 series
     (nonprofessional library personnel); and a proposed educational
     curriculum for this newly emerging category of library workers.

111. Simpson, Gustavus, S. THE EVOLVING U.S. NATIONAL, SCIENTIFIC, AND
     TECHNICAL INFORMATION SYSTEM. Battelle Technical Review 17:21-28.
     May-June 1968.
         The support of research and development by Federal agencies
     versus that by private sources is 70 percent against 30 percent.
     Because of this support an ever-increasing role for the Government
     in the field of information services is envisioned for the future.

112. Slamecka, Vladimir. GRADUATE PROGRAMS IN INFORMATION SCIENCE IN THE
     GEORGIA INSTITUTE OF TECHNOLOGY. Special Libraries 59:246-250.
     April 1968.
         The Director of Georgia Tech's School of Information Science
     describes its current academic program. Conclusions as to the
     value of this program and the status of the school are noteworthy.

113. Special Libraries Association. OBJECTIVES AND STANDARDS FOR SPECIAL
     LIBRARIES. New York, The Association, 1964.
     Also appears in Special Libraries 55:672-680. December 1964.
     Also appears in Bowker Annual of Library and Book Trade Information.
     New York, R.R. Bowker, 1965. p. 130-138.
     Appraisals, in Special Libraries 56:197-201. March 1965.
     Criticism, in Special Libraries 56:379-386. July-August 1965. (See
     Item 91)
         These standards for special libraries drawn up by the Professional
     Standards Committee, SLA, contain specific quantitative measures for
     library stacks, shelving, and space requirements only. For personnel,
     services, and collections the standards attempt to give a clear guide
     to the elements which are present in a successful special library,
     but give no yardstick for measurement.

114. Special Libraries Association, Documentation Division, and American
    Library Association, Library Technology Program. THE USE OF DATA
    PROCESSING EQUIPMENT BY LIBRARIES AND INFORMATION CENTERS; submitted
    by Creative Research Services, Inc. Chicago, American Library Asso-
    ciation, 1966. 160 p.
    Summary by E.B. Jackson, entitled: SIGNIFICANT RESULTS OF THE
    SLA-LTP SURVEY. Special Libraries 58:317-327. May 1967.
        This report includes tables showing use of data processing equip-
    ment, analyzed by function and type of equipment employed.

115. Stansfield, George J. LIBRARIES OF MILITARY EDUCATIONAL INSTITUTIONS
    IN THE UNITED STATES. Special Libraries 51:108-111. March 1960.
        This article presents a concise picture of all major academic
    military (naval and air force) libraries in the United States.
    The statistics are out-of-date, but the general picture is the
    same.

116. Stebbins, Kathleen B. PERSONNEL ADMINISTRATION IN LIBRARIES; edited
    by Foster E. Mohrhardt. Metuchen, N.J., Scarecrow Press, 1966.
    2d ed. rev., 373 p.
        One of the major resources for librarians on library personnel
    work. The statistics from public libraries given in the section,
    "Personnel Practices," are of especial interest.

117. Stevenson, Chris G. CHECKLIST FOR REVIEW AND EVALUATION OF TECHNICAL
    LIBRARIES. Special Libraries 58:106-110. February 1967.
        Detailed checklist including questions on organization, physical
    facilities, personnel, administration, reference resources, and
    others.

118. Stevenson, Chris G. A LIBRARIAN LOOKS AT THE STATE TECHNICAL SER-
    VICES ACT. Special Libraries 59:183-185. March 1968.
        An examination of the State Technical Services Act of 1965
    and the elements encouraging libraries toward more extensive use
    of information resources to benefit local industries.

119. Stevenson, Chris G. WORK MEASUREMENT IN TECHNICAL LIBRARY ACTIVITIES.
    Special Libraries 47:409-411. November 1956.
        This is an article theorizing on the development of criteria of
    work measurement in libraries. It is cited frequently by authors
    of articles or books on work measurement.

120. Stokes, Paul M. A TOTAL SYSTEMS APPROACH TO MANAGEMENT CONTROL. New
    York, American Management Association, 1968. 160 p.
        Explains in a clear and explicit manner the analysis of standards
    development. Tells how, where, and when. This is an often cited
    book on standards development.

121. Surace, Cecily J. THE HUMAN SIDE OF LIBRARIES. Santa Monica, Calif.,
    Rand Corporation, 1969. 16 p.

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Specifically concerned with personnel administration in libraries. Includes application of work measurement in special areas.

122. Tauber, Maurice F. and Stephens, Irlene R. LIBRARY SURVEYS. New York, Columbia University Press, 1967. 286 p. (Columbian University Studies in Library Science No. 16)
An in-depth treatment of library surveys of all kinds with extensive bibliographies.

123. Tauber, Maurice F. and Stephens, Irlene R. TECHNICAL SERVICES IN LIBRARIES, 1956-1966. Library Resources and Technical Services 11:321-329. Summer 1967.
A summary of significant developments in technical services in the decade from 1956-1966. A paragraph on personnel and training is included as well as one describing attempts at various library standards.

124. Taylor, Robert S. INTERFACES BETWEEN LIBRARIANSHIP AND INFORMATION SCIENCE AND ENGINEERING. Special Libraries 58:45-48. January 1967.
This article describes interfaces in five areas: systems analysis; environmental context; information channels; the naming, labelling, or classification process; and the man-system interface. "The major effect that information science will have on librarianship will be strategic rather than substantive."

125. Taylor, Robert. S. TOWARD THE DESIGN OF A COLLEGE LIBRARY FOR THE SEVENTIES. Wilson Library Bulletin 43:44-51. September 1968.
This article concerns the principles and key concepts involved in planning the library for a new four-year liberal arts college located at Hampshire College, Amherst, Massachusetts. The mission, functions, and collection of the library are described, and an estimate is made of the number of full-time and part-time staff which will be required.

126. Tuttle, Helen W. TSCOR, THE TECHNICAL SERVICES COST RATIO. Southeastern Librarian 19:15-25. Spring 1969.
TSCOR grew out of an effort to develop standards for size of technical services staffs. It is a "cost figure for staff salaries needed to convert a given number of funds into library collections." Thus, a librarian can determine how much staff will be needed, in an academic library for example, if a new program is to be added to the curriculum. A form for computing TSCOR for academic libraries is included. (See also Item 152).

127. U.S. Civil Service Commission. POSITION CLASSIFICATION STANDARDS AND GUIDE FOR THE CLASSIFICATION OF POSITIONS PROVIDING PROFESSIONAL-LEVEL LIBRARY AND INFORMATION SERVICES. Washington, U.S. Government Printing Office, 1966. various paging. (Transmittal sheets No. 60, February 1966, No. 62, June 1966, and No. 83, December 1969)

The official position classification standards for all Federal
civilian positions. Pertinent to staffing criteria are the series
GS 1410 (Librarian), GS-1412 (Technical Information Services), and
GS-1411 (Library Technician).

128. U.S. Civil Service Commission. QUALIFICATION STANDARDS, CIVIL SERVICE
HANDBOOK X-118. Washington, U.S. Government Printing Office, 1968.
various paging. (Transmittal sheet No. 121, December 1968).
The official qualification standards for all Government civilian
personnel. Pertinent to staffing criteria are the series GS-1410
(Librarian), GS-1412 (Technical Information Services), and GS-1411
(Library Technician).

129. U.S. Congress. Senate. Committee on Government Operations. DOCU-
MENTATION, INDEXING AND RETRIEVAL OF SCIENTIFIC INFORMATION. Washing-
ton, U.S. Government Printing Office, 1960. 283 p. (86th Congress,
2d Session. Senate Document No. 113)
Important document from an historical point of view, giving
background and legislative history of information activities.
Covers the entire Government picture as of June 1960 citing the
programs of each department or agency and many non-Government
programs. Considers problems of information retrieval in li-
braries, flow of information, research on scientific information
problems, approaches to solutions, and many other aspects of
documentation.

130. U.S. Department of Defense. Office of the Assistant Secretary of
Defense (Installations and Logistics). CONSTRUCTION CRITERIA
MANUAL. Washington, U.S. Government Printing Office, March 1, 1968.
various paging. (DOD 4270.1-M)
Gives space criteria for main and branch libraries, pages 3-26,
3-27. Table contains gross square area allowed per military strength
of the community.

131. U.S. Department of the Army. ARMY CIVILIAN CAREER PROGRAM FOR LIBRARIANS.
Washington, U.S. Government Printing Office, 1966. 16 p. (Civilian
Personnel Regulation 950-21)
Army regulation on the career program for Army librarians. This
regulation covers career levels and patterns, training and develop-
ment, registration and referral, and master training plan for li-
brarians. Includes a bibliography and a list of accredited library
schools (as of 1966).

132. U.S. Department of the Army. ARMY FIELD LAW LIBRARY SERVICE. Wash-
ington, U.S. Government Printing Office, October 30, 1962. 7 p.
(AR 1-115)
Army regulation governing establishment, control, and administra-
tion of Army field law libraries.

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133. U.S. Department of the Army. ARMY LIBRARY PROGRAM. Washington, U.S. Government Printing Office, April 3, 1968. 8 p. (AR 28-85)
Army regulation which establishes policies, procedures, and standards for Army Special Services libraries. Includes staffing yardstick from Department of the Army Pamphlet 20-551. (See Item 137.)

134. U.S. Department of the Army. CENTERS FOR ANALYSIS OF SCIENTIFIC AND TECHNICAL INFORMATION. Washington, U.S. Government Printing Office, January 14, 1965. 7 p. (AR 70-22, and change 1, May 4, 1967)
Army regulation prescribing policy and procedures for all information analysis centers within the framework of the Department of Defense and the Department of the Army Scientific and Technical Information Program.

135. U.S. Department of the Army. LIBRARY OPERATIONAL GUIDE. ARMY LIBRARY PROGRAM. Washington, U.S. Government Printing Office, September 15, 1961. 201 p. (DA Pam 28-30)
Operating handbook for Army Special Services libraries. This handbook covers all aspects of administration of Army post or general libraries, and includes a bibliography and a list of regulations and directives pertaining to Army libraries and librarians.

136. U.S. Department of the Army. SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM. Washington, U.S. Government Printing Office, August 18, 1965. 4 p. (AR 70-45)
Army regulation establishing policy and assigning responsibilities governing the Department of the Army Scientific and Technical Information Program.

137. U.S. Department of the Army. STAFFING GUIDE FOR U.S. ARMY GARRISONS. Washington, U.S. Government Printing Office, October 27, 1959. various paging. (DA Pam 20-551, change 4, June 3, 1963, and change 12, December 26, 1968)
Contains the official yardstick for the staffing of Special Services libraries (main library, branch, bookmobile, and installation hospital patients' library), pages 68.7-68.9.

138. U.S. Department of the Army. STAFFING GUIDE FOR U.S. ARMY SERVICE SCHOOLS. Washington, U.S. Government Printing Office, December 20, 1967. various paging. (DA Pam 616-558, and change 1, March 23, 1970)
Contains the official yardstick for the staffing of Army Service Schools, pages 2-25, 2-26.

139. U.S. Department of the Army. Office of the Chief of Engineers. GUIDE TO LAWS AND REGULATIONS ON FEDERAL LIBRARIES. New York, R.R. Bowker, 1968. 862 p. (Army Technical Library Improvement Studies) [ATLIS Report No. 4]
This extensive volume contains the laws, directives, and mission statements which have been issued by Federal agencies concerning

their libraries. The authority for libraries and library activities
has been gleaned from the literature and from the "U.S. Statutes
at Large."

140. U.S. Department of the Army. Office, Chief of Research and Develop-
    ment. U.S. ARMY DIRECTORY OF TECHNICAL INFORMATION HOLDINGS AND
    SERVICES. Washington, U.S. Government Printing Office, 1969.
    63 p. (AD 688 262)
        "This directory identifies 111 Army sources of technical infor-
    mation that include 2200 specialized subject areas. The sources
    are indexed by subject matter and name of holding, so that a
    searcher can find a description of all available indexed Army
    information sources, with details on scope and size of collections,
    services available, and means of obtaining help. It is for use
    by the research and development community having authorized access
    to these information sources, and for intercommunication between
    the sources themselves." Cites collections and services but nothing
    on staffing.

141. U.S. Federal Council for Science and Technology. Committee on Scien-
    tific and Technical Information. Panel on Information Analysis
    Centers. DIRECTORY OF FEDERALLY SUPPORTED INFORMATION ANALYSIS
    CENTERS. Washington, U.S. Government Printing Office, 1970.
    71 p. (COSATI-70-1, PB 189 300)
        Extremely pertinent directory for purposes of this study, as
    it includes for each of the 119 centers listed a very detailed
    description of the number and type of staff. Also includes date
    of origin, mission, and services performed of each center.

142. U.S. Library of Congress. LIBRARY AND REFERENCE FACILITIES IN
    THE AREA OF THE DISTRICT OF COLUMBIA. Washington, U.S. Govern-
    ment Printing Office, 1966. 7th ed. n.p.
        Lists and describes libraries in the District of Columbia
    offering service to the public, and those with service restricted
    to a given clientele which possess unique or specialized collections.

143. U.S. Office of Education. STATISTICS OF PUBLIC LIBRARIES SERVING
    COMMUNITIES WITH AT LEAST 25,000 INHABITANTS, 1965. Washington,
    U.S. Government Printing Office, 1968. 65 p.
        Includes various statistics concerning staffing and personnel.

144. U.S. Office of Education. Library Services Branch. NATIONAL INVEN-
    TORY OF LIBRARY NEEDS. Chicago, American Library Association, 1965.
    72 p.
        Special report, presented at the 1965 American Library Associa-
    tion annual conference by the president of the association, Edwin
    Castagna, of a survey made by the Office of Education. The report
    cites the gap between library resources on a national basis and
    ALA's minimum standards for library services in the areas of
    staff, operating expenditures, and book collections.

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145. U.S. President's Science Advisory Committee. SCIENCE, GOVERNMENT, AND INFORMATION: THE RESPONSIBILITIES OF THE TECHNICAL COMMUNITY AND THE GOVERNMENT IN THE TRANSFER OF INFORMATION [WEINBERG REPORT]. Washington, The White House, 1963. 52 p.
Review in Special Libraries 54:305-306. May 1963. (See Item 61)
Discussion in Special Libraries 54:325-332. July-August 1963.
Report of a Panel on Science Information to the President's Science Advisory Committee on the problems of scientific and techni-cal communication within and outside of the Government, and with recommendations of steps to be taken both by technical communities and by the Government to streamline and strengthen communication. This very important report marked a turning point in the treatment of information resources.

146. Vainstein, Rose and Magg, Marian. STATE STANDARDS FOR PUBLIC LIBRARIES. Washington, U.S. Government Printing Office, 1960. 85 p. (Office of Education Bulletin 1960 No. 22)
State-by-state description of current library standards includ-ing numbers, qualifications and ratio of staff to persons served. Bibliography of state and general references.

147. Vann, James O. DEFENSE DOCUMENTATION CENTER (DDC) FOR SCIENTIFIC AND TECHNICAL INFORMATION. Journal of Chemical Documentation 3:220-222. November 1963.
Presents a clear and concise picture of the organization and functions of this Department of Defense office which is the center for all Army, Navy, and Air Force documentation activities. It explains the systems approach in the handling of scientific and technical documents in the Department of Defense.

148. Vincent, Dale L. U.S. ARMY RESEARCH AND DEVELOPMENT INFORMATION PROGRAM, FY 1968-FY 1972. Washington, Office of the Chief of Research and Development (Army), 1968. 65 p. (CFSTI: AD 672 844)
Specific projects described are: Army technical library improve-ment studies; Symposia and conferences; Chemical information and data system; Engineering data storage and retrieval; Information and date exchange experimental activities; and Technical information functions and activities, which includes the technical information and analysis centers task and the Army research and development information system.

149. Wasserman, Paul. ELEMENTS IN A MANPOWER BLUEPRINT--LIBRARY PER-SONNEL FOR THE 1970's. ALA Bulletin 63:581-599. May 1969.
This article discusses key concepts in future librarianship: professionalism, substantive base of librarianship, correlation of individual attributes with work setting, and advanced forms of professional performance. The author, director of the Man-power Research program at the University of Maryland refers to work being done in that program in these areas. (See also Item 151)

150. Wasserman, Paul. MEASURING PERFORMANCE IN A SPECIAL LIBRARY.
Special Libraries 49:377-382. October 1958.
The author provides some practical suggestions for utilizing
a direct approach to the problem of measuring library service.

151. Wasserman, Paul and Bundy, Mary Lee. A PROGRAM OF RESEARCH INTO
THE IDENTIFICATION OF MANPOWER REQUIREMENTS, THE EDUCATIONAL
PREPARATION AND UTILIZATION OF MANPOWER IN THE LIBRARY AND
INFORMATION PROFESSIONS: FINAL REPORT, PHASE I. College Park,
University of Maryland, School of Library and Information Ser-
vices, 1969. 50 p. (EDRS: ED-023 938)
Report of the first phase of a three-year research project,
sponsored by the Office of Education, the National Science
Foundation, and the National Library of Medicine, to provide
information on the manpower requirements of the library and
information professions in order to assist in the recruitment,
training, and utilization of personnel in these growing fields.
History, current status of major investigations, and dissemina-
tion activities are among the areas covered in this first report.

152. Welch, Helen M. TECHNICAL SERVICE COSTS, STATISTICS AND STANDARDS.
Library Resources and Technical Services 11:436-442. Fall 1967.
With two-thirds of the library's budget used for staff, it
becomes necessary to develop measurements for effective administra-
tion. For the technical services area the author then develops
the concept of TSCOR, Technical Services Cost Ratio. This is
a figure which represents the amount it costs in staff salaries
to spend one dollar for library materials. (See also Item 126)

153. Wessel, C.J. and Cohrssen, B.A. CRITERIA FOR EVALUATING THE
EFFECTIVENESS OF LIBRARY OPERATIONS AND SERVICES. PHASE I:
LITERATURE SEARCH AND STATE OF THE ART. FINAL REPORT.
Washington, John I. Thompson and Company, 1967. 399 p.
(ATLIS Report No. 10) (AD-649 468)
"The first report...summarizes the findings of a search in
the library and management sciences literature, and identifies
the spectrum of management techniques to be considered for the
evaluation of library effectiveness and efficiency." A biblio-
graphy of 472 references is a major part of the report.

154. Wessel, C.J., Moore, K.L. and Cohrssen, B.A. CRITERIA FOR EVALU-
ATING THE EFFECTIVENESS OF LIBRARY OPERATIONS AND SERVICES.
PHASE II: DATA GATHERING AND EVALUATION. Washington, John I.
Thompson and Company, 1968. 109 p. (ATLIS Report No. 19)
"This report summarizes: (1) data and information collected
to facilitate the development of criteria for the evaluation
of the efficiency and effectiveness of Army Technical Libraries;
(2) the findings on the mission and objectives of Army Technical
Libraries; (3) the areas in which adequate standards for perfor-
mance are feasible, and presents the tentative (candidate) cri-

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teria and proposed manage techniques useful in implementing
them." The criteria apply to four general aspects of library
performance: (1) philosoph (2) management, (3) services
and products, and (4) operati The last category includes
"criteria which are potentially useful as a basis for develop-
ing adequate standards for performance evaluation of the staff's
professional actions."

155. Wessel, C.J. and Moore, K.L. CRITERIA FOR EVALUATING THE
EFFECTIVENESS OF LIBRARY OPERATIONS AND SERVICES. PHASE III:
RECOMMENDED CRITERIA AND METHODS FOR THEIR UTILIZATION. Wash-
ington, John I. Thompson and Company, 1969. (ATLIS Report No. 21)
"The final product is a list of recommended criteria and asso-
ciated methods of implementing them." It includes important
service measurement criteria but no staffing yardsticks. The
final report: "(1) Examines the tentative criteria (existing
and candidate); (2) assesses the reliability of the management
tools; (3) presents a detailed description of the recommended
methods of implementation of the criteria; and (4) discusses
the applicability of the criteria and methods as bases for
establishing adequate standards for performance evaluation
of ATL's" (Army Technical Libraries).

156. Wessel, C.J. CRITERIA FOR EVALUATING TECHNICAL LIBRARY EFFECTIVENESS;
WITH DISCUSSION. Aslib Proceedings 20:455-481. November 1968.
A summary and interpretation by the author of the three-phase
study of this title. (See Items 153, 154 and 155)

157. Williams, Joel, ed. LIBRARY STATISTICS OF COLLEGES AND UNIVERSITIES:
DATA FOR INDIVIDUAL INSTITUTIONS, FALL 1968. Washington, U.S. Govern-
ment Printing Office, 1969. 172 p.
Prepared for the U.S. Office of Education this volume includes
tables by state and by institution giving library staff and hours
of assistance in college and university libraries; and number and
average salary of full-time staff by type of position and term of
employment. Also included are budgetary data, operating expenditures,
and library resources data. This report, by the chief of the Li-
brary Surveys Branch, covers 1841 college and university libraries
and seven joint libraries.

158. Williams, Joel, ed. LIBRARY STATISTICS: A HANDBOOK OF CONCEPTS,
DEFINITIONS, AND TERMINOLOGY. Chicago, American Library Asso-
ciation, 1966. 176 p.
Prepared by the Staff of the Statistics Coordinating Project,
ALA, this handbook describes measurable library activities and
proposes methods of measurement. It does not set standards of
library service or present any statistics for libraries. The
sections on staffing of various libraries include procedures
for arriving at the proper number of staff for each type of
library.

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159. Woodruff, Elaine L. WORK MEASUREMENT APPLIED TO LIBRARIES. Special
      Libraries 48:139-144. April 1957.
          An article by the chief librarian of the U.S. Civil Service Com-
      mission on the value to a library and method of setting up a work
      measurement program.

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36

Instructions for Playback Procedure

Tape 1   (Includes Abstracts 1 - 36 plus introductory material)

Reference 1   Title page
                     single space
                     no margins
                     tab - 50
                     insert page and start at the top (there are carrier
                        returns on tape)

Reference 2   Introduction
                     single space for heading
                     double space for body
                     margins - 12 & 87
                     tabs - 17 & 47

Reference 3   Heading for bibliography
                     tabs - 15, 17, 20 & 47
                     add 2 carrier returns at end

Reference 4   Citation and Abstract #1
                     margins 10 & 82
                     tabs - 15, 17, 20 & 47

References 5 - 39   Abstracts 2 - 36

Tape 2

References 1 - 45
Abstracts 37 - 81

Tape 3

References 1 - 42
Abstracts 82 - 123
note: on Abstract #100 reset left margin to 9

Tape 4

References 1 - 36
Abstracts 124 - 159

Tape 5

1 reference - Index   Column 1 - left margin at 10
                                            tabs 12, 14, 16 & 43
                               Column 2 - left margin at 49
                                            tabs 51, 53, 55, & 82
Carry over headings are not on the tape and therefore must be inserted manually.

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36

Instructions for Playback Procedure

<u>Tape 1</u>   (Includes Abstracts 1 - 36 plus introductory material)

Reference 1   Title page
                  single space
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Reference 4   Citation and Abstract #1
                  margins 10 & 82
                  tabs - 15, 17, 20 & 47

References 5 - 39   Abstracts 2 - 36

<u>Tape 2</u>

References 1 - 45
Abstracts 37 - 81

<u>Tape 3</u>

References 1 - 42
Abstracts 82 - 123
note: on Abstract #100 reset left margin to 9

<u>Tape 4</u>

References 1 - 36
Abstracts 124 - 159

<u>Tape 5</u>

1 reference - Index   Column 1 - left margin at 10
                                        tabs 12, 14, 16 & 43
                             Column 2 - left margin at 49
                                        tabs 51, 53, 55, & 82
Carry over headings <u>are</u> <u>not</u> on the tape and therefore must be inserted manually.